



Docket No.: M4065.0315 P815

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Er-Xuan Ping, et al.

Application No.: 09/651,998

Group Art Unit: 2812

Filed: August 31, 2000

Examiner: H. Tsai

For: METHOD AND STRUCTURE FOR
REDUCING LEAKAGE CURRENT IN
CAPACITORS

RESUBMISSION OF AFTER FINAL AMENDMENT

Box AF
Commissioner for Patents
Washington, DC 20231

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Dear Sir:

In response to the Advisory Action mailed June 6, 2002, Applicants hereby resubmit the second After Final Amendment filed on April 30, 2002 as requested by the Examiner. The marked version of the amended claims showing the changes made are provided on page 6 of the After Final Amendment as originally submitted.

Dated: June 13, 2002

Respectfully submitted,

By

Thomas J. D'Amico

Registration No.: 28,371

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant



Atty Docket No.: M4065.0315/P315

Inventors: Er-Xuan Ping, et al.

Application No.: 09/651,998

Filing Date: August 31, 2000

Title: METHOD AND STRUCTURE FOR REDUCING LEAKAGE CURRENT ...

Documents Filed:

Fee Transmittal

Request for Extension of Time

Amendment Transmittal

2nd Amendment After Final and Request for Reconsideration



Via: PTO Daily Run

Sender's Initials: TJD:EST:tj

Date: April 30, 2002

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**SECOND AMENDMENT UNDER 37 CFR 1.116
AND REQUEST FOR RECONSIDERATION**

Box AF
Commissioner for Patents
Washington, DC 20231

Dear Sir:

In response to the Office Action dated November 30, 2001 (Paper No. 9), finally rejecting claims 1-95, and pursuant to the Advisory Action mailed April 9, 2002, please amend the above-identified U.S. Patent application as follows:

In the Claims

Please cancel claims 2, 43, and 60-95 without prejudice.

1. (Amended) A method of forming a capacitor on a substrate in a semiconductor device, comprising:

forming a first layer of a conductive material over said substrate;

forming a second layer of a dielectric over said first layer, said second layer having a thickness not exceeding about 60 Angstroms;

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forming an oxidation layer over said second layer by contacting said second layer with hydrogen, oxygen and nitrous oxide gases; and
forming a third layer of conductive material over said oxidation layer.

40. (Amended) A method of forming a capacitor structure in a semiconductor device, comprising:

depositing a layer of silicon nitride over a conductive layer formed over a substrate, said layer of silicon nitride having a thickness not exceeding about 60 Angstroms;

forming an oxidation layer over said silicon nitride by contacting said silicon nitride layer with hydrogen, oxygen and nitrous oxide gases.

44. (Amended) The method of claim 40, wherein said silicon nitride layer is deposited to a thickness not exceeding about 50 Angstroms.